AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

Listing of Claims:

Claim 1 (Currently Amended): A vertical-cavity surface emitting laser diode comprising a current confinement portion having a mesa including an oxidizee layer, the oxidizee layer having an oxidized part and a non-oxidized part, the oxidized part being formed by oxidizing the oxidizee layer from a side wall of the mesa, an electric current being injected on the non-oxidized part,

the oxidizee layer having a proton-containing part including ~~proton~~ protons at ~~a position substantially enclosing the non-oxidized part~~ an interface between the oxidized part and the non-oxidized part and without protons at an area adjacent to the side wall of the mesa.

Claim 2 (Original): The vertical-cavity surface emitting laser diode according to claim 1, wherein the proton-containing part is provided selectively near a boundary between the oxidized part and the non-oxidized part, and is not provided near a center of the non-oxidized part.

Claim 3 (Currently Amended): The vertical-cavity surface emitting laser diode according to claim 1, wherein a concentration of protons ~~proton~~ in the proton-containing part is equal to or less than $1 \times 10^{18}/cm^3$.

Claim 4 (Currently Amended): The vertical-cavity surface emitting laser diode according to claim 1, further comprising:

an active layer; and

a film ~~which gives~~ configured to provide a tensile stress to the active layer in a direction along a surface of the film.

Claim 5 (Currently Amended): A vertical-cavity surface emitting laser diode comprising a current confinement portion having a mesa including an oxidizee layer, the oxidizee layer having an oxidized part and a non-oxidized part, the oxidized part being formed by oxidizing the oxidizee layer from a side wall of the mesa, ~~and~~ an electric current being injected into the non-oxidized part, wherein

a portion of the oxidizee layer, including an interface between the oxidized part and the non-oxidized part, ~~including proton~~ includes protons, and without protons at an area adjacent to the side wall of the mesa.

Claim 6 (Currently Amended): The vertical-cavity surface emitting laser diode according to claim 5, wherein a concentration of ~~proton~~ protons in the non-oxidized part is equal to or less than $1 \times 10^{18}/cm^3$.

Claim 7 (Currently Amended): The vertical-cavity surface emitting laser diode according to claim 5, further comprising:

an active layer; and

a film ~~which gives~~ configured to provide a tensile stress to the active layer in a direction along a major surface of the film.

Claim 8 (Currently Amended): A vertical-cavity surface emitting laser diode comprising:

a first and a second reflectors;

an active layer provided between the first and the second reflectors; and

an oxidizee layer having a non-oxidized part and an oxidized part provided around the non-oxidized part,

an electric current being injected into the non-oxidized part, and

the oxidizee layer having a proton-containing part including protons substantially at an interface between the oxidized part and the non-oxidized part, and without protons at an area adjacent to a side wall of the oxidizee layer ~~proton at least at a position substantially enclosing the non-oxidized part~~.

Claim 9 (Original): The vertical-cavity surface emitting laser diode according to claim 8, wherein the proton-containing part is provided selectively near a boundary between the oxidized part and the non-oxidized part, and is not provided near a center of the non-oxidized part.

Claim 10 (Original): The vertical-cavity surface emitting laser diode according to claim 8, wherein the proton-containing part is provided all over the non-oxidized part.

Claim 11 (Currently Amended): The vertical-cavity surface emitting laser diode according to claim 8, wherein a concentration of ~~proton~~ protons in the proton-containing part is equal to or less than $1 \times 10^{18}/cm^3$.

Claim 12 (Currently Amended): The vertical-cavity surface emitting laser diode according to claim 8, further comprising a film configured to provide ~~which gives~~ a tensile stress to the active layer in a direction along a major surface of the film.

Claim 13 (Currently Amended): A vertical-cavity surface emitting laser diode comprising:

a substrate;

an active layer provided on the substrate and having a emitting part;

a first and a second reflectors sandwiching the active layer therebetween and forming a laser cavity vertical to the substrate;

a pair of electrodes ~~provided~~ configured to inject an electric current into the active layer; and

an oxidizee layer provided above or below the active layer;

a mesa ~~being~~ formed to include the oxidizee layer, and

the oxidizee layer having an oxidized part of a high resistance extending from a side wall of the mesa to a proximity of the emitting part, a non-oxidized part of a low resistance. surrounded by the oxidized part, and a proton-containing part including protons ~~proton at least~~ at ~~a position substantially enclosing the non-oxidized part~~ an interface between the oxidized part and the non-oxidized part and without protons at an area adjacent to the side wall of the mesa.

Claim 14 (Currently Amended): The vertical-cavity surface emitting laser diode according to claim 13, wherein;

the proton-containing part is provided selectively near a boundary between the oxidized part and the non-oxidized part, and is not provided near a center of the non-oxidized part,

one of the electrodes which is provided above the active layer has an opening to release a light emitted from the active layer, and

the opening is larger than an portion of the non-oxidized part which is thinner ~~inner~~ than the proton-containing part.

Claim 15 (Original): The vertical-cavity surface emitting laser diode according to claim 13, wherein the proton-containing part is provided selectively near a boundary between the oxidized part and the non-oxidized part, and is not provided near a center of the non-oxidized part.

Claim 16 (Original): The vertical-cavity surface emitting laser diode according to claim 13, wherein the proton-containing part is provided all over the non-oxidized part.

Claim 17 (Currently Amended): The vertical-cavity surface emitting laser diode according to claim 13, wherein a concentration of ~~proton~~ protons in the proton-containing part is equal to or less than $1 \times 10^{18}/cm^3$.

Claim 18 (Currently Amended): The vertical-cavity surface emitting laser diode according to claim 13, further comprising a film ~~which gives~~ configured to provide a tensile stress to the active layer in a direction along a surface of the film.

Claim 19 (Currently Amended): A method of manufacturing a vertical-cavity surface emitting laser diode having a mesa which includes a current confinement portion having an oxidizee layer, the oxidizee layer having an oxidized part and a non-oxidized part, the oxidized part being formed by oxidizing a part of the oxidizee layer, an electric current being concentrated on the non-oxidized part, comprising:

forming a proton-containing part in the oxidizee layer by selectively implanting proton into the oxidizee layer, the proton-containing part not being located at a an area adjacent to a side face of the mesa; and

forming the oxidized part by oxidizing the oxidizee layer from ~~an~~ the side face ~~thereof~~ to the proton-containing part.

Claim 20 (Currently Amended): The method of manufacturing a vertical-cavity surface emitting laser diode according to claim 19, wherein a concentration of ~~proton~~ protons in the proton-containing part is equal to or less than $1 \times 10^{18}/cm^3$.